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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/595,626

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Tadashi Nakamura

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EXAMINER

SASINOWSKI, ANDREW

ART UNIT

PAPER NUMBER

2627

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/595,626	Applicant(s) NAKAMURA, TADASHI	
	Examiner ANDREW J. SASINOWSKI	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 June 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites “defining data from a start location of the data stored in the memory circuit to a location corresponding to a next writable address as a first data portion; (and) defining data from the location corresponding to the next writable address to an end location of the data stored in the memory circuit as a second data portion”.

The quoted claim elements are indefinite for the following reasons:

- As understood from the specification, the memory circuit has an internal address system such that the stored data can be understood to have a start and ending address. Furthermore, the write-once medium has a different address system that includes a distinct "next writable address" (NWA). It is unclear how a "data portion" (i.e., data stored within an address range) can be defined using two separate address systems on two separate physical devices when neither of the devices have the same data recorded yet. Clarification is required.
- It is also unclear how both the “first data portion” and the “second data portion” can both “correspond to the next writable address” since only one

distinct set of data can be recorded to one distinct address on a write-once medium. Clarification is required.

Claim 1 will not be further reviewed until the claim elements have been properly clarified.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 – 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hwang et. al. [2004/0185216] in view of Park et. al. [2004/0076049].

Regarding claim 2, Hwang teaches:

- A drive apparatus for performing a sequential recording for a write-once recording medium **[fig. 1]**,
- wherein the write-once recording medium includes a spare area and a user data area **[fig. 2a]**,
- the drive apparatus comprising: a recording/reproduction section for performing a recording operation or a reproduction operation for the write-once recording medium **[fig. 1, item 1]**;

- and a drive control section for controlling the recording/reproduction section **[fig. 1, item 2]**, wherein the drive control section performs a process including:
- receiving a recording instruction specifying at least a location at which data is to be recorded **[fig. 1, 'user input']**;

Hwang does not teach:

- determining whether or not an ECC cluster including the location specified by the recording instruction is replaced by a replacement cluster;
- determining whether or not a read-modify-write process is required;
- when it is determined that the ECC cluster including the location specified by the recording instruction is replaced by a replacement cluster and the read-modify-write process is required, determining a specific location in the user data area which is close to where access time from the recording location of the replacement cluster is less than or equal to a predetermined time as a recording location at which the data is to be recorded;
- controlling the recording/reproduction section to record the data at the determined recording location.

Park teaches:

- determining whether or not an ECC cluster including the location specified by the recording instruction is replaced by a replacement cluster **[fig. 5, replaced cluster #2 from Rec(S12), also note §0041];**
- determining whether or not a read-modify-write process is required **[§0043, note the updated management information]**
- when it is determined that the ECC cluster including the location specified by the recording instruction is replaced by a replacement cluster and the read-modify-write process is required, determining a specific location in the user data area **[fig. 5, DFL 32, note that it is in the ‘user data area’ (Data area indicated at top of figure)]** which is close to the recording location of the replacement cluster as a recording location at which the data is to be recorded **[fig. 5, items ‘Custer #2’ and DFL#1, note that ‘close’ is a relative term];**

It would have been obvious to one with ordinary skill in the art at the time of invention to combine the apparatus taught by Hwang with the ECC cluster functionality taught by Park because doing so would enable effective management of defective areas on BD-WO formatted discs. **[Park, §0010]**

Note that while Park does not teach specifically “where access time from the recording location of the replacement cluster is less than or equal to a predetermined time as a recording location at which the data is to be recorded”, Hwang does teach:

- where access time from the recording location of the replacement cluster is less than or equal to a predetermined time as a recording location at which

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the data is to be recorded [fig. 4 shows the adjacent recording locations, §0010 teaches "...there is provided a method of reducing an access time for accessing a write-once disc with at least one record layer, the method comprising sequentially recording updated predetermined information in at least one update area..."]

Regarding claim 3, Hwang teaches:

- wherein the recording location at which data is to be recorded is adjacent to the recording location of the replacement cluster [fig. 2a, note user data area is adjacent to lead-in (i.e. replacement cluster) area].

Claim 4 is substantially similar to claim 2, and is rejected using the same references at citations featured above.

Response to Arguments

Applicant's amendments to claims 1 – 2 have been entered. Applicant's new claims 3 – 4 have been entered.

Applicant's arguments with respect to claims 1 – 2 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW J. SASINOWSKI whose telephone number is (571)270-5883. The examiner can normally be reached on Monday to Friday, 7:30 to 5:00, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on (571)272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Supervisory Patent Examiner, Art
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